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Date: August 25, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Applicant(s): Lucius Gregory Meredith
et al.

Examiner: Trenton J. Roche

Serial No: 09/560,371

Art Unit: 2193

Filing Date: April 28, 2000

Title: BINDING FOR BUSINESS WORKFLOW PROCESSES

**Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450**

REPLY BRIEF

Dear Sir:

Appellants' representative submits this Reply Brief in response to the Examiner's Answer dated June 26, 2006. A credit card payment form is filed concurrently herewith, wherein the credit card payment form is believed to cover all fees due regarding this document. In the event any additional fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [MSFTP102US].

REMARKS

Claims 8-25 are currently pending and are presently under consideration. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein. In particular, the following comments address deficiencies contended in the Examiner's Answer to appellants' Appeal Brief.

I. Regarding the Rejection of Claims 8-25 Under 35 U.S.C. §103(a)

The Examiner incorrectly maintains the rejection of claims 8-25 under 35 U.S.C. §103(a) over *Boden et al.* (US 5,930,512) in view of *Lau* (US 6,598,219 B1). It is respectfully submitted that the assertions brought forth in the Final Office Action and the Examiner's Answer are incorrect in view of at least the reasons set forth below as well as in appellants' Appeal Brief.

1. Rejection of Claims 8, 16, and 22 (regarding the binding component/module)

In particular, besides a scheduling component that employs a dataflow diagram to define a flow of business operations, independent claim 8 recites: *a binding component that binds the plurality of business operations through a schedule message, a port connection, a port and a message interface with a component outside of the dataflow diagram*. Binding business operations *outside* a dataflow diagram enables any given workflow process to be flexibly utilized for multiple business operations.

In addition, independent claim 16 recites: a scheduling component that defines the flow of business operations in a schedule ... and *a binding component that separates the schedule from implementations of a workflow and maps actions in the schedule to calls on at least one technological component*. The separation of the flow of business operations (in a schedule) and the workflow would allow a particular workflow to be applied to another schedule.

Furthermore, independent claim 22 recites: *a binding module that allows a user to define a link between the file with business operations and the plurality of disparate business implementations*. By defining a link between the file with business operations and the business *implementations*, the file is separate from the implementation, but still

linked to the implementation. For example, as illustrated in Figure 1c, a single schedule file can support different business implementations by utilizing separate binding files—in this case supporting three business implementations. (See Figure 1c and pg. 16, ll. 19-30).

Boden *et al.* involves the use of a web server and workflow server for process modeling. (See Abstract). The Examiner contends that Boden *et al.* discloses the above limitations of independent claims 8, 16, and 22 at col. 5, ll. 21-22 and col. 7, ll. 29-31. (See Final Office Action dated November 1, 2005, pg. 3). The Examiner additionally introduces an argument that standard computer interfaces would inherently support the schedule message, the port connection, the port, and the message interface of independent claim 8. (See Examiner's Answer dated June 26, 2006, pgs. 4-5). Appellants' representative respectfully disagrees with such contentions.

At the indicated passages, Boden *et al.* discusses a program that is invoked when the assigned program activity starts (See col. 5, ll. 21-22) and adequately supports the work of the activity. (See col. 7, ll. 29-31). Although the cited reference indicates the capability of running and supporting a program activity, it fails to teach or suggest a binding component/module that ***binds the plurality of business operations ... with a component outside of the dataflow diagram*** (See independent claim 8), ***separates the schedule from implementations of a workflow and maps actions in the schedule to calls on at least one technological component*** (See independent claim 16), or ***allows a user to define a link between the file with business operations and the plurality of disparate business implementations*** (See independent claim 22). Rather, there is no indication that business operations are separated from the workflow or dataflow diagram.

Business operations are, for example, functionalities of a restaurant organization or a car assembly plant. Binding the business operations outside the dataflow diagram allows one to implement the same workflow on different business operations. Boden *et al.* does not teach or suggest such type of structure bound outside a dataflow diagram, since such structure is integrated within the diagram. Accordingly, binding the business operations through ***a schedule message, a port connection, a port and a message interface*** is not inherent to standard computer interfaces. Figure 1d illustrates such configuration, *e.g.*, by defining and binding different technology components specific to

business operations *via* various ports.

The Examiner responds that since the activities themselves do not do work, they invoke programs to perform the required steps. The Examiner adds that exemplary Figure 1 of Boden *et al.* does not physically show any representation of the programs, and thus the programs are assumed to be outside the diagram and bound to the activities *via* a binding interface. In other words, the Examiner is equating the *external component* of appellants' invention with Boden *et al.*'s *program* and the *business operations* of the subject invention with the *activities* in the cited reference and suggesting that the business operations/activities are bound to the component/program during activity execution. (See Examiner's Answer dated June 26, 2006, pgs. 12-14).

Boden *et al.*'s activities define who should perform the activity, what conditions must be met in order to start the activity, and what conditions determine when the activity is finished. (See col. 9, ll. 21-25). Boden *et al.*'s programs execute the activity. However, throughout the cited reference, the activities are *integrated* within the diagram. (See *e.g.*, Examiner's Answer dated June 26, 2006, pg. 13 "the activities in the diagram"). Using programs derived from outside a diagram to run activities does not remove the activities outside the dataflow diagram.

The following example presents this point. Figures 1-5 of Boden *et al.* describe the way in which a workflow model for an insurance company would be created. More specifically, the reference illustrates a workflow for processing a life insurance application through the sales and underwriting departments of an insurance company. (See col. 8, line 66 – col. 9, line 2). It is apparent by the way such example is phrased that the business operations (*e.g.*, the functionality of an insurance company) are not bound to a component outside the dataflow diagram. Rather, the model that is subsequently translated into a template *integrates the particular aspects of the life insurance application and processes into the template*. (See *e.g.*, col. 9, ll. 41-43, "control connectors model the sequence of program activities and the logic for moving from one activity to the next"). Since the template comes packaged with features specific to the insurance company, the business operations of the insurance company are not bound to a component outside of the dataflow diagram. Calling an external program, such as a person (See col. 10, ll. 15-17), to perform the activity does not alter this binding

of the activities.

2. Rejection of Claims 8, 16, and 22 (regarding XML)

In addition, independent claim 8 (and similarly, independent claims 16 and 22) recites that the *scheduling component employs XML programming language* and the *binding component employs XML programming language*. XML provides numerous advantages for appellants' invention, including: allowing a user to specify dependency and independence between components, transaction, compensation, and checkpoint boundaries (*See* pg. 21, ll. 3-4), allowing a user to specify mechanisms for abstracting the workflow from the implementations of the components (*See* pg. 21, ll. 5-6), defining the abstract location where a message is to be sent and received (*See* pg. 22, ll. 3-5), allowing a user to specify the ordering of individual actions and whether those actions are performed sequentially or concurrently (*See* pg. 22, ll. 5-7), and describing elaborate ordering of actions. (*See* pg. 22, ll. 11-12). Boden *et al.* and Lau, alone or in combination, fail to teach or suggest this aspect of the claimed invention.

The Examiner concedes that Boden *et al.* does not disclose a scheduling and binding component employing XML (*See* Final Office Action dated November 1, 2005, pg. 3), but erroneously contends that Lau discloses an analogous software model employing XML at col. 2, ll. 33-35 and col. 3, ll. 5-20. (*See* Final Office Action dated November 1, 2005, pg. 3). Appellants' representative respectfully disagrees.

Lau relates to a data model expressed in XML. (*See* Abstract). The above noted passages describe XML-based data elements corresponding to tasks (*See* col. 3, ll. 5-20), with the use of universally known and understood functions. (*See* col. 2, ll. 33-35). One advantage of using XML is that different users are easily able to recognize the code. The inherent characterizations of the XML language itself do not provide a motivation to combine the language of Lau with the model of Boden *et al.* It is not obvious to one of ordinary skill in the art to employ the XML language to a scheduling component and a binding component simply because Lau appears to discuss the generic advantages of the language with respect to individual data elements.

The Examiner responds that substituting the markup language of HTML as disclosed in Boden *et al.* with a different markup language (*i.e.*, XML) is an obvious

modification. (See Examiner's Answer dated June 26, 2006, pg. 15). Appellants' representative avers to the contrary. Structuring the invention using XML is not a simple process where one can plainly switch from HTML to XML and therefore would not be obvious to one of ordinary skill in the art. The implementation of XML affects the integral configuration of the product, such as enabling one to specify the ordering of individual actions, as well as enabling one to perform binding in a separate routine. (See pg. 22, ll. 5-16).

3. Rejection of Claim 25 (regarding XML)

Furthermore, claim 25 recites that *the link is provided in a programmable language having XML syntax*. The implementation using XML syntax is not an obvious switch and replace solution, as discussed above. Boden *et al.* and Lau, alone or in combination, fail to teach or suggest the utilization of XML with respect to the scheduling and binding module, let alone for the *link* between the file with business operations and the plurality of disparate business implementations. HTML does not provide for any schema that allows for the unique abilities of the present invention, including binding.

In view of at least the foregoing, it is readily apparent that Boden *et al.* and Lau, alone or in combination, do not teach or suggest the invention as recited in independent claims 8, 16, and 22 (and associated dependent claims 9-15, 17-21, and 23-25). Accordingly, this rejection should be reversed.

II. Conclusion

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 8-25 be reversed.

If any additional fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP102US].

Respectfully submitted,

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